The American Geosciences Institute recognized Dr. Susan W. Kieffer, Professor Emerita at the University of Illinois, Urbana-Champaign with the 2017 Marcus Milling Legendary Geoscientist Medal. The medal was awarded to Dr. Kieffer at the American Association of Petroleum Geologists awards ceremony on 2 April 2017 in Houston (Texas, USA).

Dr. Kieffer's career illustrates an amazing commitment to research and service. Her approach—involving field, experimental, and theoretical work—has influenced our understanding of planetary interiors and surfaces and has highlighted unifying themes across disciplines. In addition, her service to geoscience, both through societies and through other venues, positively impacts fellow geoscientists and society in general.

Dr. Kieffer has touched a broad range of geoscience disciplines throughout her career. Her research has improved our understanding of Earth's interior and surface, and our neighbors in the Solar System. The breadth of her research has been tremendous. Her model of lattice dynamics was instrumental in developing a method to calculate thermodynamic parameters from spectroscopic data, which revolutionized mineral physics and isotope geochemistry. While working for the U.S. Geological Survey, she rafted the Colorado River numerous times to produce hydraulic maps for all of the rapids within the Grand Canyon (Arizona, USA). She was the first researcher to lower a video camera into Old Faithful geyser at Yellowstone National Park (Wyoming, USA). She was one of the first researchers to visit Mt. Saint Helens (Washington, USA) after its 1980 eruption. Her research on gas plumes coming from Saturn’s moon Enceladus has driven vibrant discussion about the presence of water on some of the moons in our Solar System.

She is an active participant in geoscience service. She is Vice President of the International Association for Promoting Geoethics and she is a member of the National Academy of Sciences. After receiving the prestigious so-called “genius award” from the John D. and Catherine T. MacArthur Foundation, she founded the Kieffer Institute for Development of Science Based Education, a nonprofit organization located in Phoenix (Arizona, USA), where she helped teach science to at risk 7th to 12th graders. Additionally, she has been an associate editor for American Mineralogist, chairman of the Canadian Geoscience Council for the study of nuclear waste disposal, chair of the Geography/Geology Section of the American Association for the Advancement of Science, and was cofounder of the Critical Issues Caucus, which organized early interdisciplinary meetings on sustainability. She was the second American, and the first (and only) woman, to be awarded the Spendiarov Prize of the U.S.S.R. Academy of Sciences.

Dr. Kieffer has also received an Alfred P. Sloan Foundation Fellowship, the Department of Interior Meritorious Service Award, the Mineralogical Society of America Award, and the Day Medal of the Geological Society of America. She is a member of the National Academy of Sciences, a MacArthur Fellow and a Fellow of the American Academy of Arts and Sciences.

Dr. Kieffer is, thus, exceptionally well qualified to receive the 2017 Marcus Milling Legendary Geoscientist Medal.

---

**Compact AMS Systems**

National Electrostatics Corp. offers a wide variety of compact, low voltage AMS systems for radio isotope ratio measurement through the actinides. NEC also provides complete AMS systems up to 25MV. All NEC systems provide high precision and low background. They can be equipped with a high throughput, multi-sample ion source or dual ion source injector for added versatility.

### Available Isotopes: C, Be, Al, Ca, I, Actinides

<table>
<thead>
<tr>
<th>Model</th>
<th>Isotopes</th>
<th>Terminal Voltage (MV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSAMS</td>
<td>C</td>
<td>0.25</td>
</tr>
<tr>
<td>CAMS</td>
<td>C</td>
<td>0.50</td>
</tr>
<tr>
<td>XCAMS</td>
<td>Be, C, Al</td>
<td>0.50</td>
</tr>
<tr>
<td>UAMS</td>
<td>Be, C, Al, Ca</td>
<td>1.00</td>
</tr>
<tr>
<td>IAMS</td>
<td>C, I</td>
<td>0.50</td>
</tr>
<tr>
<td>Actinide AMS</td>
<td>actinides</td>
<td>1.00</td>
</tr>
</tbody>
</table>

### Features:

- Better than 3 per mil precision and better than 1x10^{-15} background for $^{14}C/^{12}C$
- Gas and solid sample sources available
- All Metal/Ceramic Acceleration tubes with no organic material in the vacuum volume
- Automated Data Collection and Analysis

---

7540 Graber Rd. P.O. Box 620310 Middleton, WI 53562
Tel: 608-831-7600 Fax: 608-831-9591 Email: nec@pelletron.com Web: www.pelletron.com
improve your science
with the AXRD Benchtop Powder Diffractometer

FIND OUT WHY SO MANY SCIENTISTS ARE CHOOSING PROTO.

www.protoxrd.com/powder